

# ICT for Administration of Land Tenure and Property Rights

ICT@USAID Series Presentation

8 February 2006

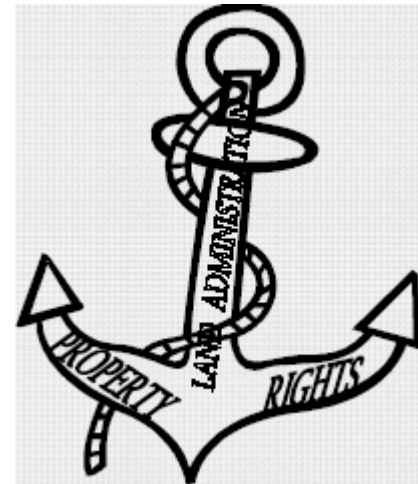
Kim G. Glenn, ARD, Inc.

# Overview

- Land Tenure and Property Rights Administration (5 minutes)
- ICT Tools (15 minutes)
- Lessons Learned from the Philippines, Albania, and East Timor (20 minutes)
- Discussion (20 minutes)

# Tenure and Property

- Tenure = right to own or use
- Property = land and permanent immovable objects

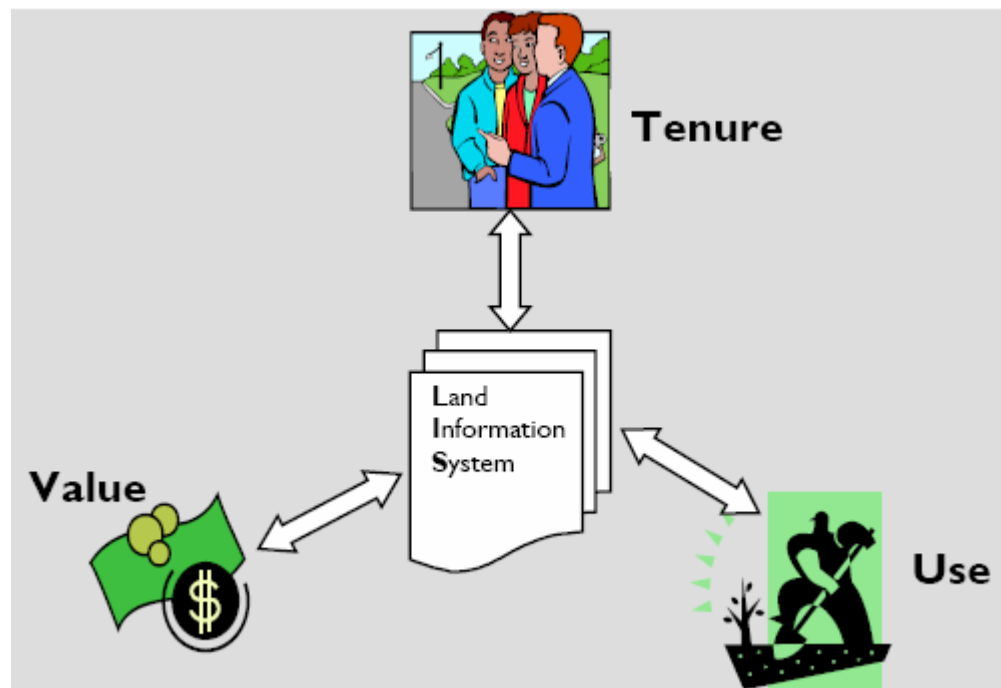


## Land Administration Systems

Register Rights and Identify Properties

# Four Land Administration Functions

1. **Tenure:**  
specific rights  
to specific  
properties.
2. **Use:** define  
and enforce.



3. **Value:** for taxation, appraisal to support land markets, leasing of state properties.
4. **Information:** updating, protecting, and distributing.

# ICT Tools, but ...

- Computerized Databases
- Geographic Information Systems (GIS)
- Aerial Photography
- Remote Sensing
- Global Positioning Systems (GPS)
- Digital Cameras
- Networks

# Databases

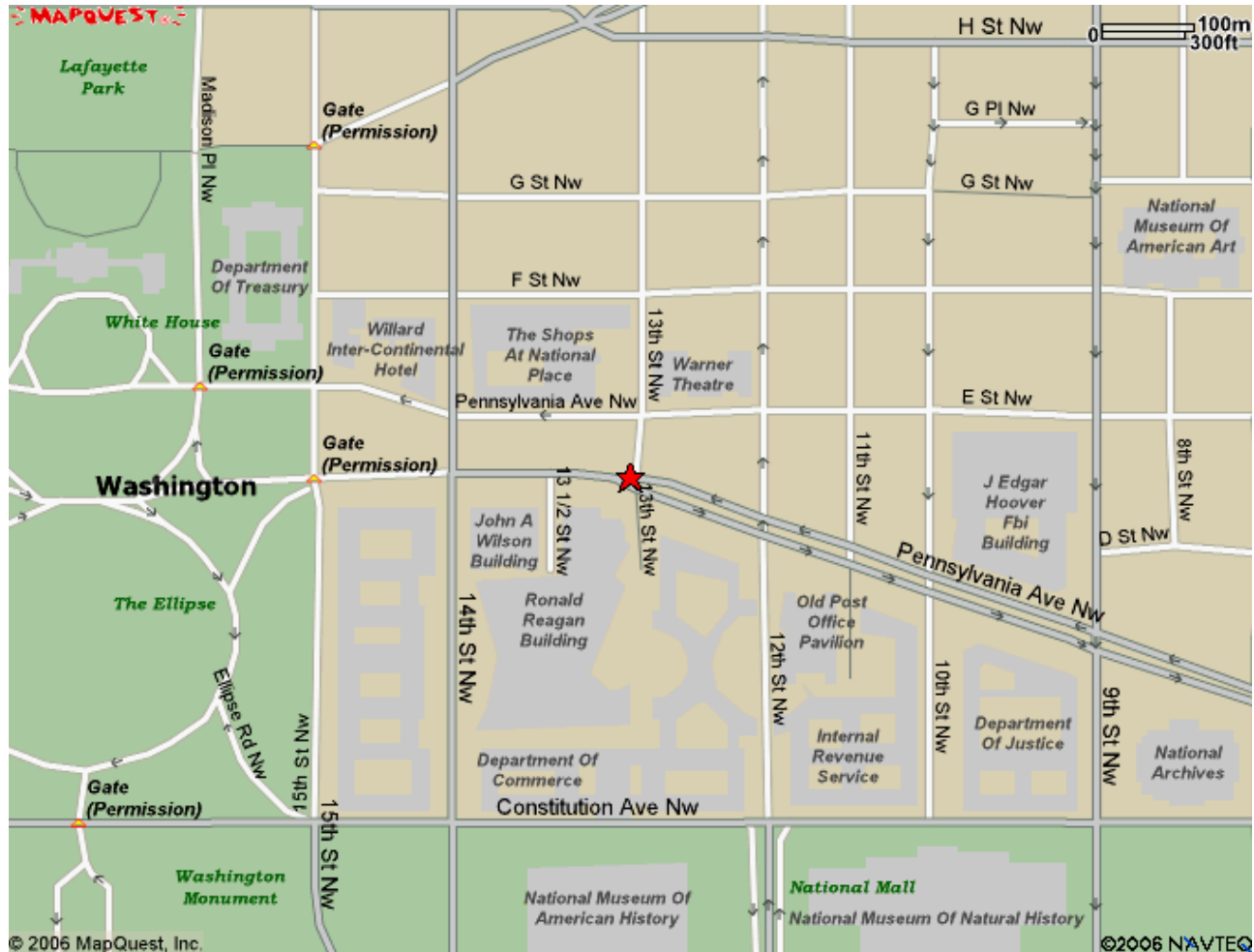
- Owners
- Value
- Technical Description
- Unique Property ID Number
- Transactions



# Geographic Information Systems



# Computerized Mapping

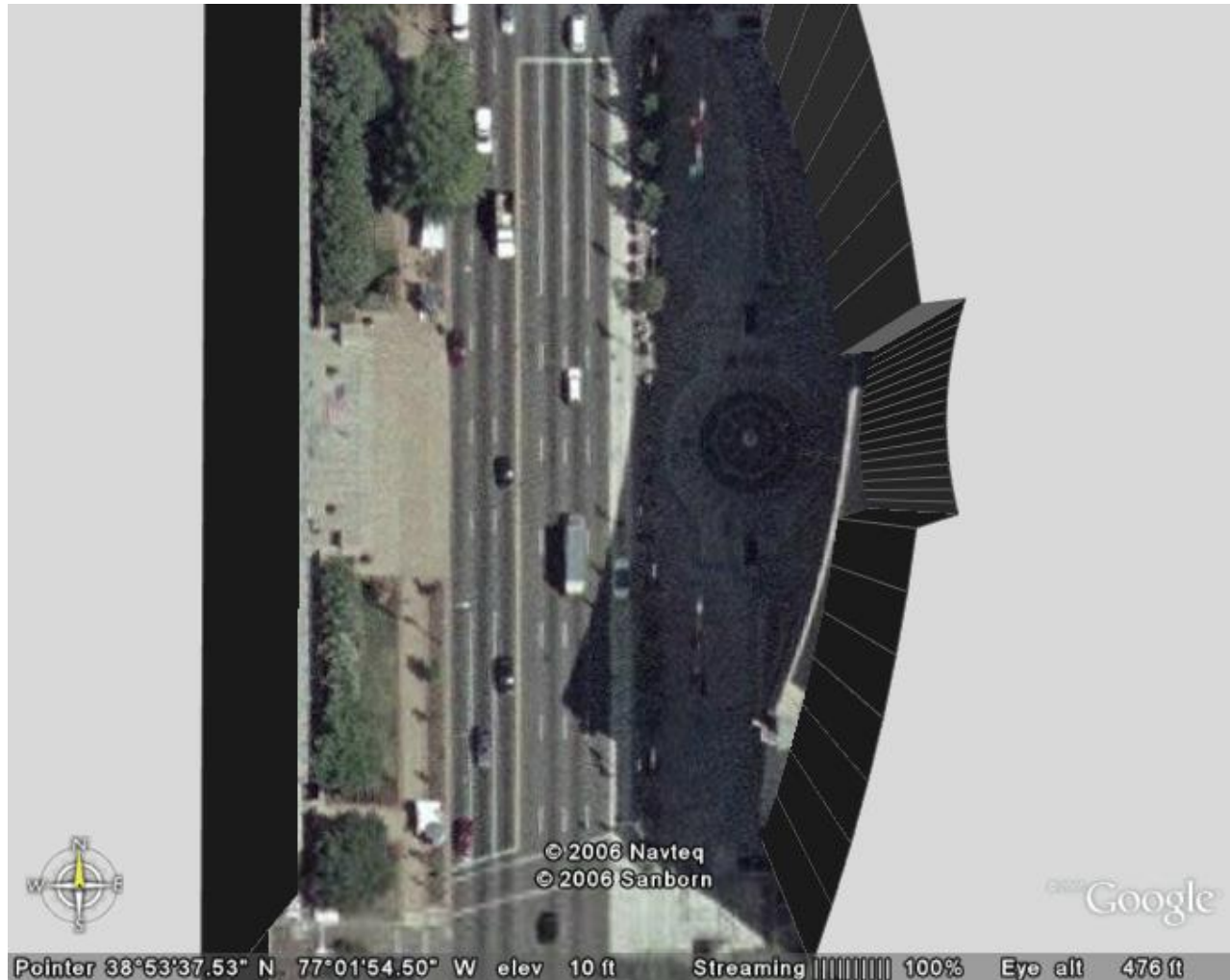




# Satellite Photography



# High Resolution Aerial Photography

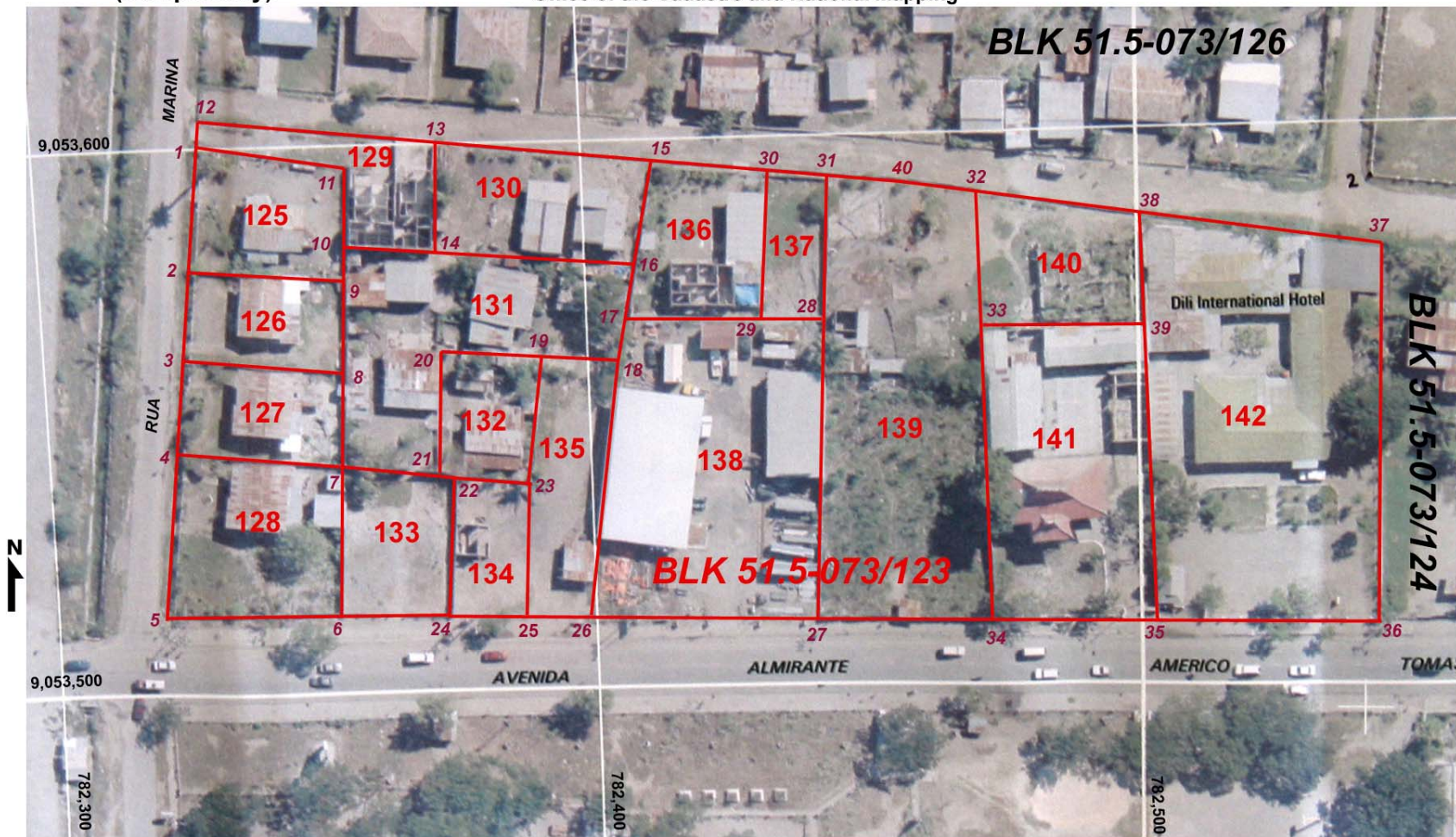




**BLOCK MAP 51.5-073/123**  
(Sample only)

Ministry of Justice  
Directorate of Land and Property  
Office of the Cadastre and National Mapping

DILI - Farol Area  
1:10,000 Cadastral map 51.5-073



Surveyed by

.....Surveyor's Name .....Date of Survey

.....Surveyor's Signature

**Map Scale 1:500**

Map Projection: UTM Zone 51  
Datum: WGS 84

Boundary point no.: 25

Parcel no.: 134

UPI derived by adding parcel no. to 1:10,000 Cad Map No.: = 51.5-073.134

District: .....

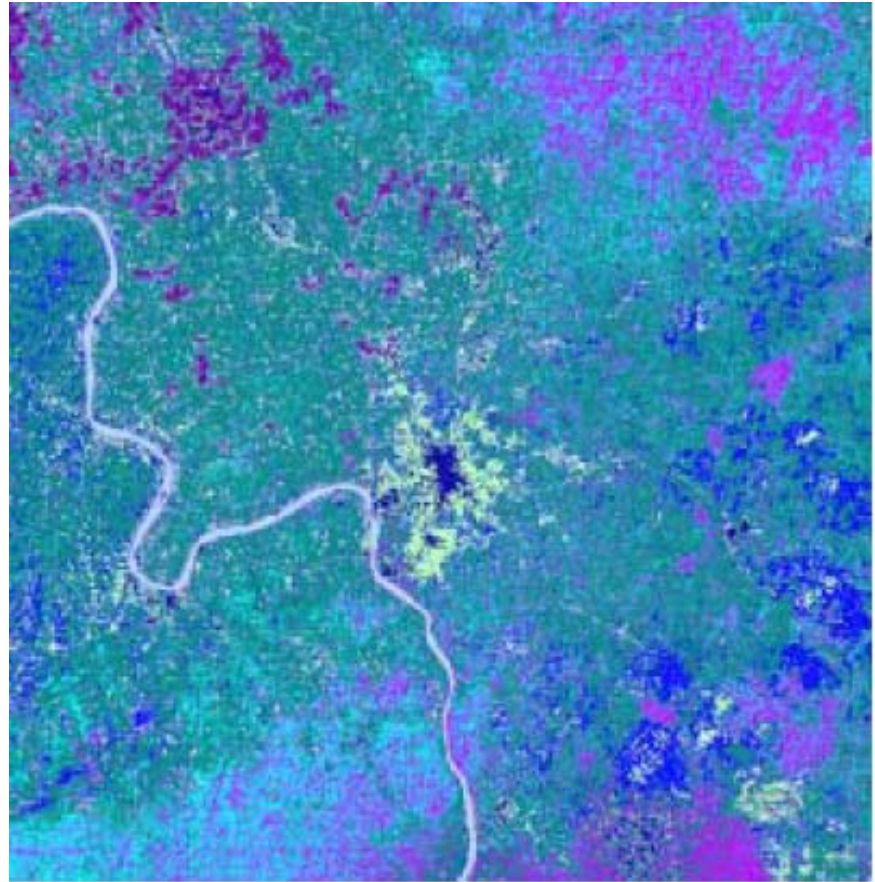
Sub District: .....

Suco: .....

Aldeia: .....



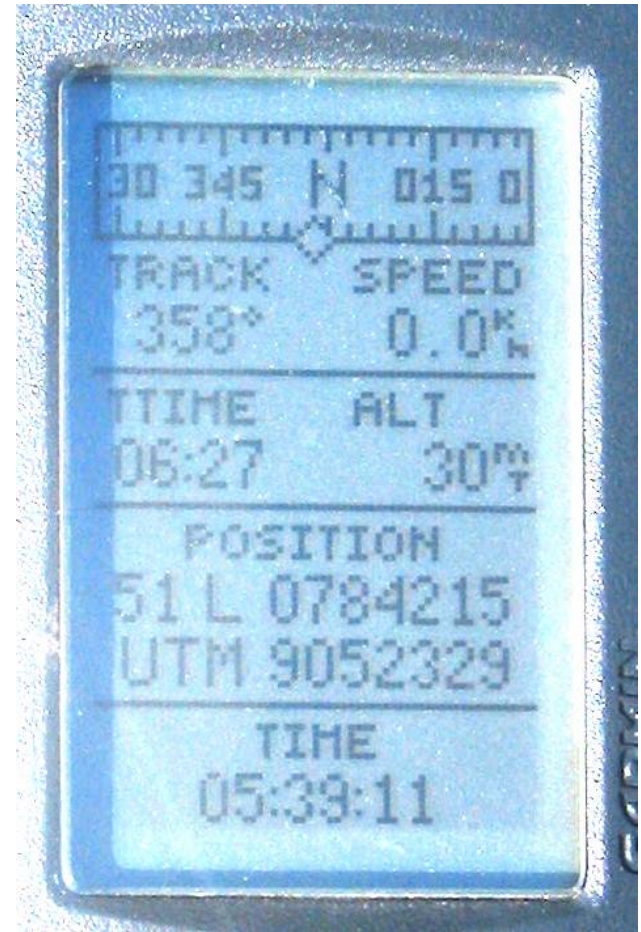
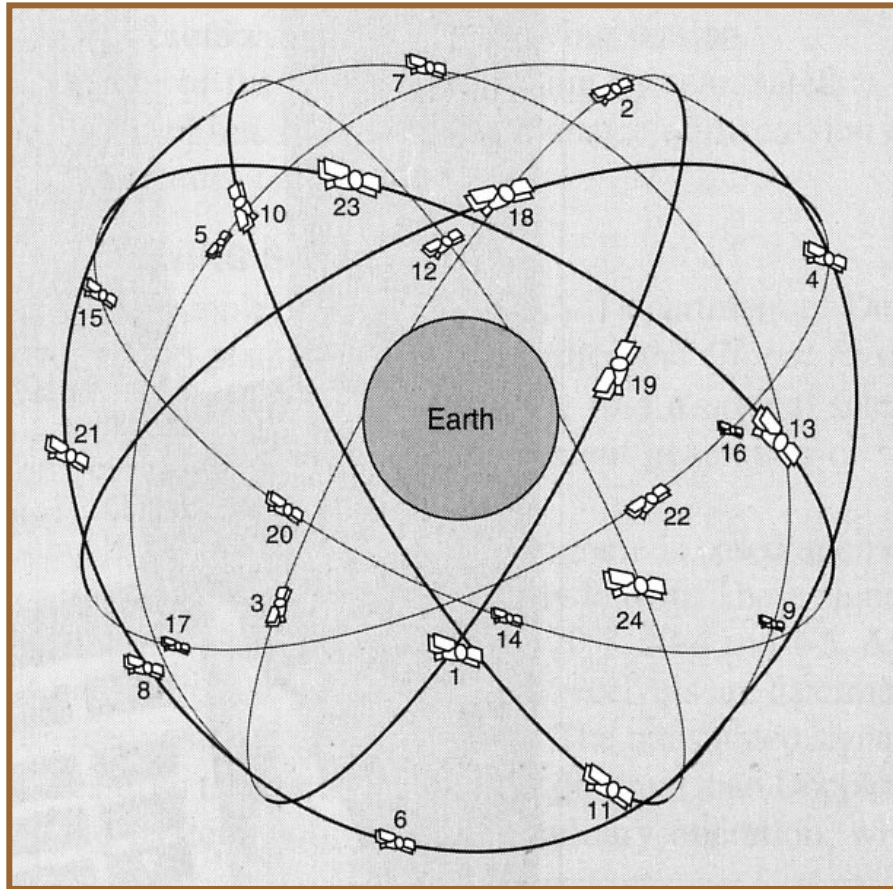
# Remote Sensing



*Listening to pixels:* In this portion of a satellite image near the town of Ikom, located on the Cross River, each pixel is given a color based on land cover. For example, bright purple indicates areas of virgin forests; light violet, areas of secondary forest. Urban areas are shown in dark blue, and the light-green color indicates an “other” category—usually mixed pixels that cannot be accurately associated with a single land cover category.



# Global Positioning System



# Digital Photography

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**REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE**  
**MINISTÉRIO DA JUSTIÇA**  
**DIRECÇÃO DE TERRAS E PROPRIEDADES**  
Avenida Bôlo de Moleno, Santo António - Tlo +670 533067 +670 723051 dtp.timorleste@notmat.com

**FORMULÁRIO TUNTUTAN UNTUK WARGA NEGARA ASING**  
**DASAR HUKUM :**  
Pasal 13, Undang - Undang Nomor : 01 Tahun 2005 tentang  
Rejim Yuridis Benda Tidak Bergerak, Bagian 1. Kepemilikan Benda Tidak Bergerak.

Ref. Peta : \_\_\_\_\_  
Lembar Peta : \_\_\_\_\_  
Kotak/NIB : \_\_\_\_\_

NOMOR : 320.2C.01.C3.00001

**I.A. TUNTUTAN ATAS BENDA TIDAK BERGERAK :**

1. Nama :	<u>RITA DA SILVA</u>	Perorangan/individu
2. No.ID/KTP/Passport :	<u>CC27. YH/6066201</u>	
3. Kewarganegaraan :	<u>INDONESIA</u>	
4. Tempat/Tanggal Lahir :	<u>KIAATUTU 6-4-1967</u>	
5. Alamat :	<u>MEULIWAKALAUTATA WELAWABU WIDE 90005</u>	
Jl. :		
Telepon :		
Emailaddress :		

**B. KUASA**

1. Nama Penerima Kuasa :	
2. No.KTP/ID Card :	
3. Tempat/Tanggal Lahir :	
4. Kewarganegaraan :	
5. Alamat :	
6. Hubungannya dengan Pemberi Kuasa :	
7. Akte Kuasa Notaris :	

**B.PIHAK YANG DITUNTUT :**

1. Perorangan <input type="checkbox"/> Pemerintah <input type="checkbox"/> Kelompok <input type="checkbox"/> Badan Hukum Pemerintah <input type="checkbox"/>	
Badan Hukum Swasta <input type="checkbox"/>	
2. Nama :	
3. Alamat :	
Beri tanda "✓" dalam kotak.	

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d. Ankesan : Benda ACRG Lajang : Tanggal : \_\_\_\_\_ Bulan : \_\_\_\_\_ Tahun : \_\_\_\_\_  
Tempat dan Nama Kantor Lajang : \_\_\_\_\_  
Nomor Ankesan : \_\_\_\_\_  
Buat penuntutan sedang : \_\_\_\_\_

e. Putusan Pemberian Hak  
Jabatan Pejabat yang Memutuskan : PAKARAWA BINA PUP LIM-TIN  
Sifat Keputusan : Nomor : PAKARAWA BINA PUP LIM-TIN  
Pemeratannya : Telah dipenuhi ☒ Belum dipenuhi ☐

f. Pendaftaran ACRG Tanah : Sedang dipungkir ☐ Tidak dipungkir ☒

g. Lain - lain, sehubungan : \_\_\_\_\_

**B. KEMATAHAN PENGUSAHA DAN PENGUNJUKAN TANAH :**

a. Peta Tahun : 1997 diusulkan/ditilik oleh : AKA WIDE DA SILVA  
b. Berkatnya pada tahun : 1997 diusulkan/ditilik oleh : AKA DA SILVA  
Dipenuhi dengan cara : WIDE DA SILVA

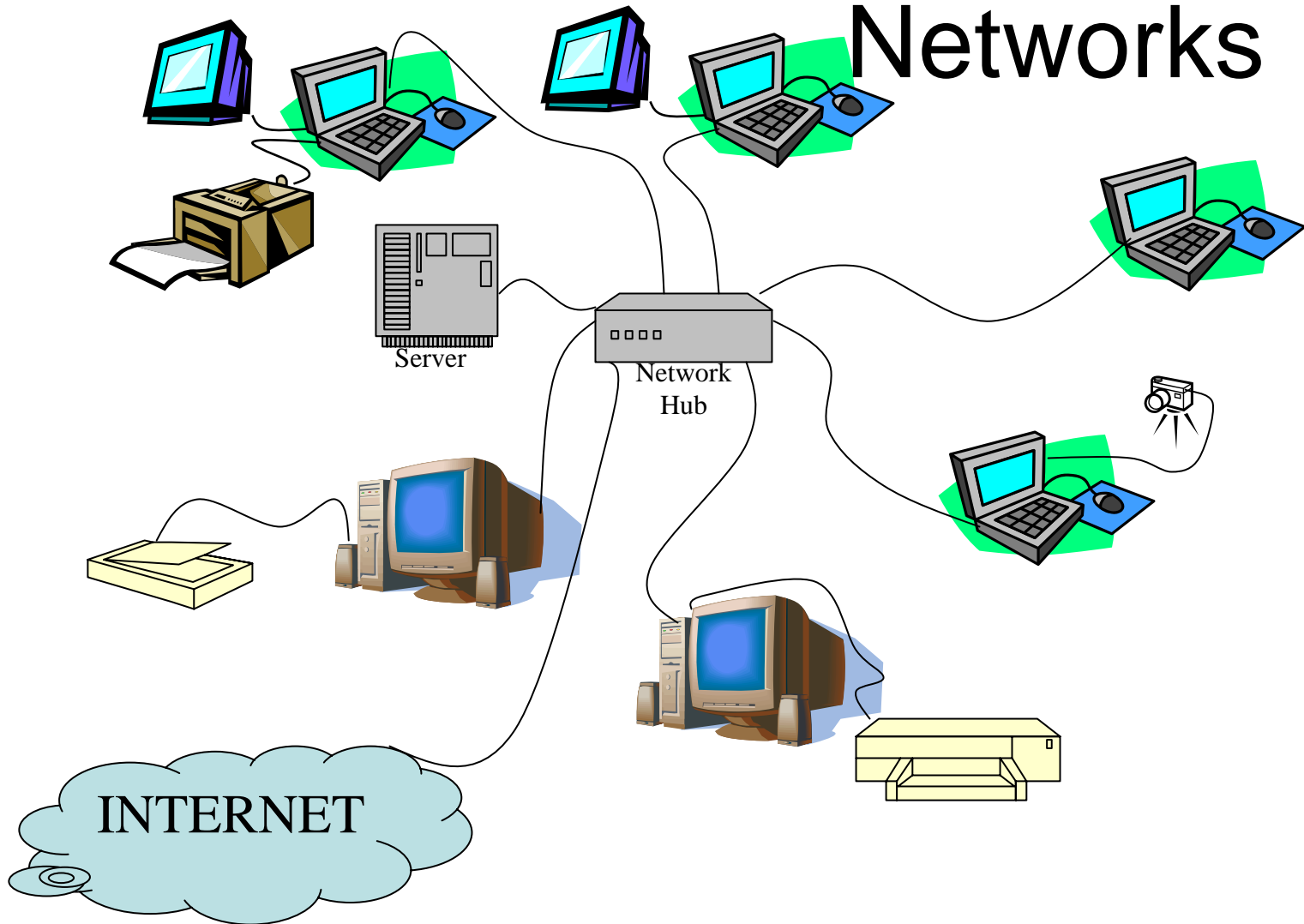
c. Penggunaan Tanah : Penanaman ☐ Sawah ☐ Ladang ☐ Ekuit ☐  
Adem kom ☐ Industri ☐ Perkebunan ☐ Dileksi Pengembangan ☐  
Lecangan umum ☐ Pengembangan Terak ☐ Dileksi ☐  
Berbenda ☐ atau non ☐

**B.BENCUKAN DI ATAS TANAH :**

A. Jenis Bangunan : Rumah Tinggal ☐ Gudang ☐ Islam ☐ Toko ☐ Gerk ☐  
B. Tidak ada bangunan ☐  
C. Tanah kosong ☐

Demikian keterangan saya,  
di, 21-8-2017  
Nama dan tanda tangan Penuntut,  
RITA DA SILVA  
Petugas Penerima Tuntutan,  
[Signature]

# Networks



# ICT Tools, but ...

Information Systems often fail because the emphasis is on the technology, and not on those who are meant to use and benefit from it.



# Philippines Land Titling Computerization Project

- Well-established “Torrens” system
- Internally driven
- USTDA Technical Assistance
- Private sector financed
- Long-term implementation
- Processes Re-engineered
- Total conversion to digital media

# Albania

- Post-conflict environment
- Transitioning from deeds to registry system
- Heavily donor financed “First Registration”
- ICT’s applied to initialize, but manual systems remain in place
- Public information and education key
- Transparency dramatically reduced conflict

# East Timor

- Post conflict
- Starting from scratch
- Aerial photographs a key resource
- Restitution, compensation, claims resolution, privatization, all require “preliminary cadastre”
- Digital documentation

# Conclusion

- The technology is the easy part, the human context is the real challenge
- While expensive, high connectivity leads to essential synergies
- Digital technologies carry a bias towards transparency, a critical component of successful administration of land tenure and property rights